AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method of following the course of a flight plan of a cooperative aircraft [[(1)]] provided with a flight management computer [[(FMS 30)]] linked by a data transmission link [[(53, 61)]] to a control authority comprising the steps of: [[(2)]], the flight plan being known to the control authority [[(2)]] and ~~consisting~~ including of a chaining of waypoints ~~(WPi, WPi+1)~~ associated with local flight constraints defining a trajectory skeleton [[(LT_{FP})]] to be followed and a travel schedule to be complied with,

the control authority [[(2)]] employing the flight plan to estimate the instantaneous position of the aircraft [[(1)]],

the flight management computer [[(FMS 30)]] constructing, on the basis of the trajectory skeleton [[(LT_{FP})]] and of the travel schedule that are specified in the flight plan, an effective trajectory [[(LT_{FMS})]] with softened lateral and vertical transitions, dimensioned so as to take account of the maneuvering capabilities of the aircraft [[(2)]] and of a comfort instruction, and tagged by means of pseudo-waypoints [[(PWPi,j)]] associated with local flight constraints, the position of a pseudo-waypoint [[(PWPi,j)]] marking the start of a transition and the associated local flight constraints defining the properties of the transition, said method being characterized in that the flight management computer [[(FMS 30)]] of the aircraft [[(2)]] calculates the locations of the projections [[(SPWPi,j)]] of the pseudo-waypoints [[(PWPi,j)]] onto the trajectory skeleton [[(LT_{FP})]] specified in the flight plan and communicates them via the data transmission link [[(53, 61)]] to the control authority [[(2)]] which uses them to improve its estimate of the instantaneous position of the aircraft [[(2)]].

2. (currently amended): The method as claimed in claim 1, ~~characterized in that~~ wherein the flight management computer [[(FMS 30)]] of the aircraft [[(2)]] projects the pseudo-waypoints [[(PWPi,j)]] onto the trajectory skeleton [[(LT_{FP})]] of the flight plan while conserving distances, the distance to a waypoint [[(WPi)]] of the projection [[(SPWPi,j)]] of a pseudo-

waypoint [[(PWPi,j)]] being equal to that separating the projected pseudo-waypoint [[(PWPi,j)]] from the point [[(SWPi)]] of the effective trajectory [[(LT_{FMS})]] of the aircraft [[(2)]] which is closest to the waypoint [[(WPi)]] considered.

3. (currently amended): The method as claimed in claim 2, ~~characterized in that~~ wherein the flight management computer [[(FMS 30)]] of the aircraft [[(2)]] projects the pseudo-waypoints [[(PWPi,j)]] onto the trajectory skeleton [[(LT_{FP})]] of the flight plan while conserving distances measured as a length unit, the distance to a waypoint [[(WPi)]] of the projection [[(SPWPi,j)]] of a pseudo-waypoint [[(PWPi,j)]] being equal to that separating the projected pseudo-waypoint [[(PWPi,j)]] from the point [[(SWPi)]] of the effective trajectory [[(LT_{FMS})]] of the aircraft [[(2)]] which is closest to the waypoint [[(WPi)]] considered.

4. (currently amended): The method as claimed in claim 2, ~~characterized in that~~ wherein the flight management computer [[(FMS 30)]] of the aircraft [[(2)]] projects the pseudo-waypoints [[(PWPi,j)]] onto the trajectory skeleton [[(LT_{FP})]] of the flight plan while preserving equivalent, the distances measured as travel time, the travel time from a waypoint [[(WPi)]] to the projection [[(SPWPi,j)]] of a pseudo-waypoint [[(PWPi,j)]] being taken equal to the travel time from the projected pseudo-waypoint [[(PWPi,j)]], to the point [[(SWPi)]] of the effective trajectory [[(LT_{FMS})]] of the aircraft [[(2)]] which is closest to the waypoint [[(WPi)]] considered.

5. (currently amended): The method as claimed in claim 1, ~~characterized in that~~ wherein the flight management computer [[(FMS 30)]] of the aircraft [[(2)]] communicates to the control authority [[(1)]], with the locations of the projections [[(SPWPi,j)]] of the pseudo-waypoints [[(PWPi,j)]] onto the trajectory skeleton [[(LT_{FP})]] specified in the flight plan, indications on the nature and the magnitude of the changes of local flight instruction that are associated with the projected pseudo-waypoints [[(PWPi,j)]].